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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,015	06/25/2001	Khoi Hoang	60595-300801	2659

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EXAMINER

LAYE, JADE O

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding..

Office Action Summary

Application No.

09/892,015

Applicant(s)

HOANG ET AL.

Examiner

Jade O. Laye

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2001.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-44 is/are rejected.
7) ☒ Claim(s) 19 and 42 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 27 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 8/19/03
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5/12/03
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) 11/18/02
Paper No(s)/Mail Date 6/25/01, 7/19/01, 12/6/01, 12/7/01
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statements (IDS) submitted on 6/25/01, 7/19/01, 12/10/01, 2/6/02, 11/21/02, 5/10/03, and 9/20/03 are in compliance with the provisions of 37 CFR 1.97. Accordingly, each information disclosure statement has been considered by the examiner.

Claim Objections

2. Claims 19 and 42 are objected to because of the following informalities:
 - a. Claim 19 is identical to claim 4. Applicant is advised that should claim 4 be found allowable, claim 19 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).
 - b. Claim 42 appears to contain a typo in the phrase "...an additionally a signal...".Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 14, 15, 21-23, 26, 27, and 43 are rejected under 35 U.S.C. 102(e) as being anticipated by Medvinsky. (US Pat. No. 6,754,908).

As to claim 1, Medvinsky discloses a system capable of detecting a hacked set top box (STB), which comprises a data bus, digital communications link, memory capable of determining whether STB is authorized and performing anti-counterfeit measures if system is not authorized, and a processing unit (i.e., controller) which controls the STB analysis. (Fig. 2 ; Col. 3, Ln. 15-19 ; Col. 4, Ln. 19-46 ; Col. 7, Ln. 33-48 ; Col. 9, Ln. 1-6 & 46-54). Medvinsky further teaches the system transmits a modulated digital signal. (Col., 3, Ln. 15-19). Therefore, it is inherent the system also contain a digital decoder. Accordingly, Medvinsky anticipates each and every limitation of claim 1.

The limitations of claim 26 are encompassed within claim 1. Therefore, it is analyzed and rejected as previously discussed.

As to claim 2, Medvinsky further teaches said memory can be RAM used to store authorizations, keys, and serial numbers. (Col. 4, Ln. 39-46). The Examiner interprets persistent to refer to long term (since Applicant provided no clear definition). Therefore, RAM would also meet the persistent limitation of claim 2. Accordingly, Medvinsky anticipates each and every limitation of claim 2.

As to claims 14 and 15, Medvinsky further teaches a key is transmitted once the STB is determined to be authorized. (Col. 1, Ln. 31-42 & col. 6, Ln. 15-22). This key is used to enable the STB (i.e., update the protocol) to decrypt the incoming signal. Accordingly, Medvinsky

anticipates each and every limitation of claims 14 and 15. (Note: The limitations of claim 15 are essentially the same as claim 14, therefore it is analyzed and rejected accordingly.)

Claim 27 corresponds to the apparatus claim 14. Thus, it is anticipated and rejected as previously discussed.

As to claim 21, Medvinsky further teaches the system contains a television display (i.e., graphic display). (Fig. 2). Accordingly, Medvinsky anticipates each and every limitation of claim 21.

As to claim 22, the limitations recited therein are combinations of limitations found in claims 1 and 14. Therefore, it is analyzed and rejected accordingly.

As to claim 23, the limitations recited therein mirror those of claim 2. Thus, it is analyzed and rejected as previously discussed.

As to claim 43, the limitations recited therein are encompassed within the limitations of claim 1. However, for clarification a few limitations will be addressed here. Specifically, Medvinsky discloses a data file (i.e., data block) having an authenticity checker (i.e., authorization data structure) embedded within it. (Figs. 1, 3, 4, & 5). This file is transmitted to the STB, where said authorization checker searches the STB for verification. Once verified, the data file may be restored via the use of a decryption device, such as a key. (Col. 1, Ln. 54-63). The remainder of the limitations were addressed under claim 1. Accordingly, Medvinsky anticipates each and every limitation of claim 43.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 3 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Medvinsky in view of Spies et al. (US Pat. No. 6,055,314).

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Claim 3 recites the STB of claim 2, wherein said persistent storage device is a hard disk. As discussed above, Medvinsky contains all limitations of claim 2, but fails to specifically disclose the use of a hard disk. However, within the same field of endeavor, Spies discloses a similar system which utilizes an IC card (i.e., hard disk) used to store decryption (i.e., authorization) information. (Col. 2, Ln 25-42). Accordingly, it would have been obvious to one of ordinary skill in this art at the time of applicant's invention to combine the systems of Medvinsky and Spies in order to supply an anti-counterfeiting system comprising a hard disk, thereby providing an effective means for video distributors to upgrade and/or modify security schemes.

Claim 24 corresponds to claim 3. Thus, it is analyzed and rejected as previously discussed.

5. Claims 4-13, 19, 25, 28, 29, 31-42, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Medvinsky in view of Bock et al. (US Pat. No. 5,953,418).

Claim 4 recites the STB of claim 1, further comprising a STB authenticity code hidden within the STB hardware, wherein said software for determining whether STB is authentic includes software for performing an integrity check upon said hidden code. As discussed above, Medvinsky contains all limitations of claim 1, but fails to specifically recite the limitations of claim 4. However, within the same field of endeavor, Bock discloses a similar system, which analyzes a code (i.e., board ID) hidden within the STB hardware in order to ascertain whether the STB is meant (i.e., authorized) to receive the transmitted data. (Col., 1, Ln. 57-67 ; Col. 15, Ln. 5-15 ; Col. 20, Ln. 38-56). Accordingly, it would have been obvious to one of ordinary skill in

this art at the time of applicant's invention to combine the systems of Medvinsky and Bock in order to supply a system capable of analyzing a hidden code within a STB, thereby providing a system which keeps track of intended recipient receivers.

The limitations of claim 19 are identical to those of claim 4. Thus, it is analyzed and rejected as previously discussed.

The limitations of claim 25 are encompassed within the limitations of claim 4. Thus, it is analyzed and rejected as previously discussed.

Claims 5 and 6 recite the STB of claim 4, wherein said integrity check involves performing a cyclic redundancy check and a checksum, respectively. As discussed above, the combined systems of Medvinsky and Bock disclose all limitations of claim 4, and Medvinsky further teaches the use of a cyclic redundancy check and a checksum. (Col. 6, Ln. 50-56). Accordingly, the combined systems of Medvinsky and Bock contain all limitations of claim 5.

Claim 7 recites the STB of claim 4, wherein said integrity check involves querying a location wherein said STB authenticity code is hidden. As discussed above, the combined systems of Medvinsky and Bock disclose all limitations of claim 4, and Bock further teaches the board ID is located within board ID register 185. (Col. 20, Ln. 38-65). Therefore, the system must query the board ID register in order to determine authorization. Accordingly, the combined system of Medvinsky and Bock contain all limitations of claim 7.

Claims 8 and 9 recite the STB of claim 4, wherein said integrity check involves performing an image check upon said STB. (Note: Claim 9's limitations are encompassed within the limitations of claim 8). As discussed above, the combined systems of Medvinsky and Bock disclose all limitations of claim 4, and also disclose the limitations of claims 8 and 9.

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Since Applicant provided no clear definition of “image check” the Examiner broadly interprets this term to refer to any check upon the STB. Thus, the same rejection applied under claim 4 can be applied here because an “image check” can be broadly interpreted as almost any check imposed upon the STB, including checking for hidden codes as recited in claim 4. When the combined system analyzes the hidden STB code, it is essentially performing an image check upon the STB. Therefore, the combined systems of Medvinsky and Bock disclose all limitations of claims 8 and 9.

Claims 10 and 11 recite the STB of claim 4, wherein said performing anti-counterfeiting measures upon said STB when said device is determined to be counterfeit includes disabling and damaging said STB, respectively. As discussed above, the combined systems of Medvinsky and Bock disclose all limitations of claim 4, and Medvinsky further teaches the system will disable functionality of the STB. (Col. 9, Ln. 1-6 & 45-55). The Examiner broadly interprets “disable functionality” to encompass disabling or damaging the STB. A disabled STB could also be considered damaged, and vice versa. Accordingly, the combined systems of Medvinsky and Bock contain all limitations of claims 10 and 11.

Claim 12 recites the STB of claim 4, wherein said performing anti-counterfeiting measures upon said STB when said device is determined to be counterfeit includes transmitting a signal to a broadcast server indicating STB is counterfeit. As discussed above, the combined systems of Medvinsky and Bock disclose all limitations of claim 4, and Medvinsky further teaches the system sends an “exception” signal to the head end, which then flags the unauthorized STB. (Col. 10, Ln. 46-56 & Col. 12, Ln. 1-3). Accordingly, the combined systems of Medvinsky and Bock contain all limitations of claim 12.

Claim 28 corresponds to claim 12. Thus, it is analyzed and rejected as previously discussed.

Claim 13 recites the STB of claim 12, wherein said signal includes info on the location of said STB. As discussed above, the combined systems of Medvinsky and Bock disclose all limitations of claim 12, and Medvinsky inherently teaches the limitations of claim 13. Medvinsky teaches that each STB has a unique address and that the system can report unauthorized STBs back to the head end. (Col. 3, Ln. 8-10 ; Col. 10, Ln. 40-46 ; Col. 11, Ln. 60-67 thru Col. 12, Ln. 1-3). Based upon this disclosure, it is inherent the system be able to locate specific STB in order to accurately and efficiently report them to the head end. Accordingly, the combined systems of Medvinsky and Bock disclose all limitations of claim 13.

Claims 29, 31, 32, and 33 recite the method of claim 28, wherein the message is sent via the Internet, telephone connection, broadband connection, and via a cable modem, respectively. As discussed above, the combined systems of Medvinsky and Bock disclose all limitations of claim 28, and Medvinsky further teaches the use of a network which can distribute data via packet switched networks (used in Internet communications), phone lines, satellite (i.e., broadband), or a cable modem. (Col. 3, Ln. 14-27 & 39-56). Accordingly, the combined systems of Medvinsky and Bock disclose all limitations of claim 29.

Claim 34 recites a counterfeit counter measure for transmission signal processors comprising limitations too numerous to list herein (please refer to claim sheet). The limitations of claim 34 are only combinations of limitations from claims 1 and 10. Thus, it is analyzed and rejected accordingly.

Claim 35 recites the counter measure of claim 34, wherein said authenticity checker is embedded in a protocol update. As discussed above, the combined systems of Medvinsky and Bock disclose all limitations of claim 34, and Medvinsky further teaches that a key (i.e., protocol update) can be embedded within the authorization data (i.e., authorization checker). (Col. 6, Ln. 4-29). In light of this disclosure, claim 35 would be a matter of simple design choice and an obvious variant. Accordingly, the combined systems of Medvinsky and Bock contain all limitations of claim 35.

Claim 44 corresponds to claim 35. Thus, it is anticipated and rejected as previously discussed.

Claim 36 recites the counter measure of claim 34, wherein said authenticity verification is software. This limitation is encompassed within claim 1. Thus, it is analyzed and rejected accordingly.

Claim 37 recites the counter measure of claim 34, wherein said authenticity checker is hardware. This limitation is also encompassed within claim 1. Moreover, replacing hardware with software or vice versa is an obvious design choice. Thus, claim 37 is analyzed and rejected as previously discussed under claim 1.

Claims 38 and 39 correspond to the apparatus claims 10 and 11 respectively. Thus, each is analyzed and rejected as previously discussed.

Claims 40 and 41 recite the counter measure of claim 34, wherein said transmission signal is part of a uni-direction and bi-directional transmission system, respectively. As discussed above, the combined systems of Medvinsky and Bock disclose all limitations of claim 34, and further discloses a uni-directional transmission system (*Bock* Col. 3, Ln. 38-50) and a bi-

directional transmission system (*Medvinsky* Fig. 1). Accordingly, the combined systems of *Medvinsky* and *Bock* contain all limitations of claim 40.

Claim 42 recites the counter measure of claim 41, and limitations that mirror those of claim 12. (Please refer to the claim sheet). Thus, it is analyzed and rejected accordingly.

6. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Medvinsky*.

Claim 16 recites the STB of claim 15, wherein said broadcast signal encoded using said associated updated protocol is transmitted at a predetermined time. As discussed above, *Medvinsky* discloses all limitations of claim 15, and also discloses the limitations of claim 16. In Col. 1, Ln. 31-43, *Medvinsky* discloses a pay per view system in which keys are used to enable receivers to decode video signals. It is fundamental to any pay per view system that keys be transmitted only after a receiver is believed to be authorized (i.e., predetermined time). Therefore, although this limitation is not specifically stated, it was suggested by *Medvinsky*. Thus, it would have been obvious to one of ordinary skill in this art at the time of applicant's invention to modify the system of *Medvinsky* to include transmitting keys at predetermined times, thereby providing a system which achieves the objectives of pay per view programming.

Claim 17 recites the STB of claim 16, wherein said STB is no longer able to decode broadcast signals encoded using the protocol used to encode broadcast signals transmitted before said predetermined point in time. As discussed above, *Medvinsky* discloses all limitations of claim 16, and further teaches the STB authorization only lasts for a predetermined time period. (Col. 6, Ln. 25-26). Accordingly, *Medvinsky* discloses all limitations of claim 17.

7. Claims 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Medvinsky as applied to claim 15 above, and further in view of Tomizawa (US Pat. No. 4,250,524) and further in view of Bertram. (US Pat. Pub. No. 2002/0010920).

Claim 18 recites the STB of claim 15, wherein said protocol updating includes listening at a predetermined time and channel for a signal containing info for enabling said STB. As discussed above, Medvinsky discloses all limitations of claim 15, but fails to specifically recite the limitations of claim 18. However, within the same field of endeavor, Tomizawa discloses a similar system in which a key code is sent at a predetermined time. (Col. 1, Ln. 49-65). Also within the same field of endeavor, Bertram discloses a similar system wherein the systems tunes to a particular channel in anticipation of a descrambling message. (Pars. [0012, 0020 & 0043]). Accordingly, it would have been obvious to one of ordinary skill in this art at the time of applicant's invention to combine the systems of Medvinsky, Tomizawa, and Bertram in order to provide session-based conditional access to on-demand content of variable duration.

Claim 20 recites the STB of claim 18, wherein said protocol updating includes altering at least a portion of said STB's existing communications protocol such tat said STB is able to decipher signals transmitted using an updated communications protocol. As discussed above, the combined systems of Medvinsky, Tomizawa, and Bertram disclose all limitations of claim 18, and Medvinsky further teaches the limitations of claim 20. The limitations of claim 20 mirror those of claim 14, therefore, it is analyzed and rejected as previously discussed.

8. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Medvinsky in view of Bock as applied to claim 28 above, and further in view of Spies et al. (US Pat. No. 6,055,314).

Claim 30 recites the method of claim 28, wherein said predetermined location is a bi-directional DOD server. As discussed above, the combined systems of Medvinsky and Bock disclose all limitations of claim 28, and Medvinsky further teaches the use of a bi-directional system. (Fig. 1). But, the combined references fail to specifically disclose the remaining limitations of claim 30. However, within the same field of endeavor, Spies discloses a similar system which delivers video on demand. (Col. 13, Ln. 67 thru Col. 14, Ln. 1-7). Accordingly, it would have been obvious to one of ordinary skill in this art at the time of applicant's invention to combine the systems Medvinsky, Bock, and Spies in order to supply an anti-counterfeiting system which also delivers video on demand, thereby allowing a user to receive programming at his or her convenience.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Grube et al (US Pat. No. 5,388,212) disclose a system capable of detecting modified receivers.
- b. Kahn (US Pat. No. 5,978,649) discloses a system capable of dynamic channel authorization.


- c. Naito (US Pat. No. 4,550,341) disclose a system capable of preventing unauthorized observations.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jade O. Laye whose telephone number is (571) 272-7303. The examiner can normally be reached on Mon. 7:30am-4, Tues. 7:30-2, W-Fri. 7:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner's Initials JL
May 19, 2005.


JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600